

ATTACHMENT B

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A method of calibrating a camera lens system having adjustable parameters as used on site on an on-site camera provided with sensors for delivering signals representative of at least pan and tilt angles of the on-site camera, the method comprising the steps of:

(a) calibrating, once for all, determining intrinsic characteristics of the camera lens system while ~~it~~ the lens system is mounted on a reference camera and establishing a computer file containing said intrinsic characteristics for obtaining a first calibration which is specific to the lens system and is carried out once for all; and

(b) further calibrating, on site, each time the lens system is used, an assembly comprising the on-site camera and the lens system mounted on the on-site camera so as to define transfer functions relating signals from said on-site camera sensors and from lens system sensors delivering signals responsive to values of said adjustable parameters to actual values of said parameters, based on said file and of signals obtained by shooting predetermined characteristic points in the scene to be observed by the on-site camera.

2. (currently amended) A calibration method for generating a correspondence table between at least output signals from zoom and focus sensors placed on a camera lens and constituted by digital encoders, and actual values of focal length and geometrical deformation for an on-site camera on which the lens system is mounted, said method comprising the steps of:

(a) performing a stage once and for always, comprising determining intrinsic characteristics of the lens, which stage is performed after the lens has been mounted on a reference camera, and comprising the following steps :

- taking a plurality of shots with the reference camera in different pan and tilt orientations and different zoom and focus values for obtaining respective successive images,

- for each shot, storing output signals from the encoders and positions in the image of at least two points, including a nearer point and a farther point in a scene observed in the shot; and

- drawing up an intrinsic calibration table by comparing values of the output signals and the positions of the points in the images by the reference camera; and

(b) performing a stage ~~performed~~ on site after the lens has been mounted on an on-site camera to be used on site, comprising the steps of :

- specifying operating conditions; and
- repeating only some of the operations performed in stage (a) solely insofar as they operations are necessary for resetting origins.

3. (currently amended) A method according to claim 4~~2~~, wherein the nearer point observed during stage (a) is a point source.

4. (original) A method according to claim 3, wherein the point source is a laser diode placed at a distance that is greater than and close to a shortest distance for which focussing is possible.

5. (original) A method according to claim 1, characterized in that all of the measurements of stage (a) are performed prior to performing all computations which are later performed subsequently and together.

6. (original) A method according to claim 2, wherein during calculations the lens is represented by a mathematical model making use solely of functions having a single input variable.

7. (original) A method according to claim 2, comprising the steps of converting a set consisting of all data delivered by the sensors and representing a condition of the instrumented camera into an audio signal, and transporting and recording said set in an audio-video environment.